Getting Started with the Graphical Policy Analysis Tool (GPAT)
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The purpose of the Graphical Policy Analysis Tool is to allow users the ability to effectively visualize and analyze RiverWare model outputs as well as other data sets. This tool is designed to allow statistical comparisons and graphing of multiple modeling runs that may vary with respect to hydrology, operational policy, or other parameters. The Graphical Policy Analysis Tool utilizes the functionality of the Microsoft Excel spreadsheet environment and the programming capability of Microsoft Visual Basic for Applications (VBA).

System Requirements

Windows 95/98 or later
Microsoft Excel 97 or later
96 MB or more of RAM
(Test files of 3 policies with 85 runs, 45 slots, and 732 monthly timesteps required 94 MB of RAM. Increased number of policies to analyze and/or increased dimensions will require more RAM to be efficiently read and processed in Excel and GPAT).
13" screen or larger

Excel File Format Requirements

GPAT has considerable flexibility in analyzing time series data from various data sources as long as that data is resident in Excel workbooks. The requirements for the Excel workbooks are that rows must represent timesteps, the first column must contain the timestep names, and the first row must contain the column names.

To analyze data from the RiverWare program, the data must be put into Excel workbooks. On the Windows platform, the Output Manager and Multiple Run Manager can be configured to send modeled output directly to Excel files, or an Excel Database DMI can be configured to write series data to Excel. Otherwise, the managers mentioned above can output data to RiverWare data files (.rdf). The ExcelWriter tool (available from CADSWES) can then translate the .rdf files to Excel workbooks.

Installing GPAT

1) Download the zipped GPAT files from the RiverWare or RiverWare Viewer download pages on the CADSWES web site (http://cadswes.colorado.edu/)
> The suite of files includes: Graphical Policy Analysis Tool.xla, GPAT.HLP, GPAT.cnt, GettingStartedWithGPAT.doc

2) Start Microsoft Excel

3) Go to the Add-Ins dialog
- Excel 2003 – Go to Tools→Add-Ins
- Excel 2007 – Go to the Office Button→Excel Options→Add-Ins→Manage→Excel Add-Ins→Go…
- Excel 2010 – Go to File→Options→Add-Ins→Manage→Excel Add-Ins→Go..

4) Add GPAT
- If an earlier version of GPAT is selected in the Add-Ins dialog, uncheck it and close the dialog. This ensures that menu items for the earlier version are removed.
- Use the Browse button in the Add-Ins dialog to navigate to the downloaded GPAT .xla file and click OK.
- The new version of the Graphical Policy Analysis Tool should be checked in the Add In list, if not check it and click OK.
- In Excel 2003, the Graphical Policy Analysis Tool should now appear both as a button in Excel and a pull-down menu option under the 'Tools' toolbar in Excel. In Excel 2007 and 2010, the Graphical Policy Analysis Tool will appear as a pull-down menu and custom toolbar in the Add-

Ins tab at the top of the Excel display. In all versions, selection of the pull-down menu gives the options to 'Open the Graphing Form' and open the 'GPAT help' menu.

- Excel automatically restores the list of active Add-Ins from previous sessions. Therefore GPAT will remain visible in your Excel unless you remove GPAT by removing its check mark in the Add-Ins dialog.

Starting GPAT

After GPAT is installed you can start GPAT by clicking the Graphical Policy Analysis Tool custom toolbar, or by selecting "Open the Graphing Form" from the GPAT pull-down menu. These actions bring up the main graphing control form for GPAT.

Accessing the help may be done in several ways. From the Excel interface, the user can select the "GPAT Help" item from the GPAT pull-down menu. From the main GPAT graphing control form, the user can select the Help button to access the help menu. If the system cannot locate the GPAT help files, the user can manually browse for them. The primary help file is GPAT.HLP, but there exists a dependent file called GPAT.CNT that must exist in the same directory for the help menu to function properly.

To temporarily hide the GPAT control sheet, select the Minimize GPAT button. This allows the user to access the Excel worksheets without exiting the GPAT program entirely.

To exit GPAT and return to Excel, click either the Exit GPAT button or the X button in the upper right corner.

Further descriptions of the purpose, structure and functionality of the Graphical Policy Analysis Tool can be found in the GPAT help.